

116 West Main Street, Suite 201 St. Charles, Illinois 60174 Phone: 630.443.7755 Fax: 630.443.0533 www.wbkengineering.com

WILLS BURKE KELSEY ASSOCIATES

March 21, 2012

Ms. Kathy Chernich, Chief US Army Corps of Engineers Chicago District Regulatory Branch – East Permits and Enforcement Section 111 North Canal Street, Suite 600 Chicago, Illinois 60606-7206

Subject:

Wetland Delineation Report for the Elgin Community College

USACE Project No. LRC-2010-728

WBK Project No. 10-0004

Dear Ms. Chernich;

On behalf of our client, Elgin Community College (ECC), Wills Burke Kelsey Associates, Ltd. (WBK) is submitting a wetland delineation report for portions of the ECC campus including the West Parking Lot expansion area in Elgin, Illinois. The project area is located in the SW¼ of Section 21, Township 41N, Range 8E in Elgin, Kane County, Illinois (Latitude: 42.017201° N, Longitude: 88.328182° W). WBK completed a delineation of wetlands at Elgin Community College in three separate project areas. One of the areas (adjacent to the West Parking Lot) is part of resolution of the violation of the West Parking Lot Expansion. The two remaining project areas are potential future projects for the College.

The delineation is based on information obtained during multiple site visits and through various maps and aerial photographs. WBK used the following sources of information:

- USGS Topographic Map Elgin Quadrangle, 1992
- US Fish and Wildlife Service National Wetland Inventory Elgin Quadrangle, 1980
- Kane County Advanced Identification Study, August 2004
- USDA SSURGO Soil Data, February 2010
- USGS Geologic Survey Hydrologic Investigations Atlas Map Elgin Quadrangle (HA-147, 1965)
- Digital Flood Insurance Rate map Kane County, Panel 17089C0164H, effective 2009
- Aerial Photographs from Photomapper for 2001, 2002, 2004, 2006, and 2008
- Illinois Bulletin No. IL 190-8-4 Wetland Mapping Conventions prepared by the Natural Resources Conservation Service (NRCS) dated December 18, 1997
- ECC Visual and Performing Arts Center Wetland Mitigation Plan prepared by Civil Design Group, Inc. dated 10-31-91

This report was completed to delineate wetlands along Spartan Drive and on the west portion of the campus. The identified three wetlands tributary to Otter Creek and two waters that appear to be under the jurisdiction of the US Army Corps of Engineers under Section 404 of the Clean Water Act. WBK also identified one wetland and two waters that appear to be isolated and under the jurisdiction of City of Elgin.

Based on historical information, aerial photographs, soil maps, and pre-construction topography, WBK has prepared a pre-impact delineation (See Exhibit WI in the attached report). WBK

contends that the total impact from construction activities of expanding the west parking lot and excavating a temporary stormwater detention basin is 1.78 acres. To compensate for some of the impacts to Wetland 4, WBK proposes removing fill, restoring wetlands, and enhancing non-wetland hydric soils (Table 1). The large fill pile (0.32 acres) at the northwest end of the temporary basin will be removed and restored to wetland conditions. The portion of the temporary basin (adjacent to the fill pile) that was excavated out of wetland (0.27 ac) will be restored to wetland conditions. The remaining bottom of the temporary basin (1.0 acres) within the mapped hydric soils will be enhanced for credit at a 0.25:1 ration (0.25 acres of credit). The remaining impact to be mitigated is 0.94 acres. At a 5:1, ratio as previously agreed upon, a total of 4.7 acres of mitigation must be provided. Once the final mitigation requirement is decided, ECC will determine the means of proposed mitigation.

Table 1: Wetland Impact and Proposed Mitigation

	Area (ac)						
·	Impact	Restoration	Ratio	Remaining Mitigation Required			
Total Wetland Impact	1.78	-		1.78			
Impacted Wetland to be Restored	-	0.59	1:1	1.19			
Area to be Enhanced (0.25:1 Ratio)	- .	1.0	0.25:1	0.94			
Mitigation to be Provided (5:1 Ratio)	0.94	-	5:1	4.70			

WBK is submitting this delineation report for USACE review and boundary concurrence as part of the resolution of the violation for impacts to a wetland from expansion of the West Parking Lot. After the final mitigation requirement is decided, ECC will propose mitigation to resolve the violation of the West Parking Lot Expansion.

Please feel free to contact me at 630-443-7755 if you have any questions regarding the attached report.

Sincerely,

Patrick VerHalen, CPESC

Soil Scientist

Patrick Kelsey, CPSS/SC

Executive Vice President

Encl.

Cc:

Paul Dawson, PE, ECC Chris Lindley, WBK

ELGIN COMMUNITY COLLEGE ELGIN, ILLINOIS

Wetland Assessment Report

Prepared for:

ELGIN COMMUNITY COLLEGE 1700 SPARTAN DRIVE ELGIN, IL 60012

March 15, 2012

WBK Project Number 10-0004

Patrick VerHalen, CPESC

Qualified Wetland Review Specialist #W-065

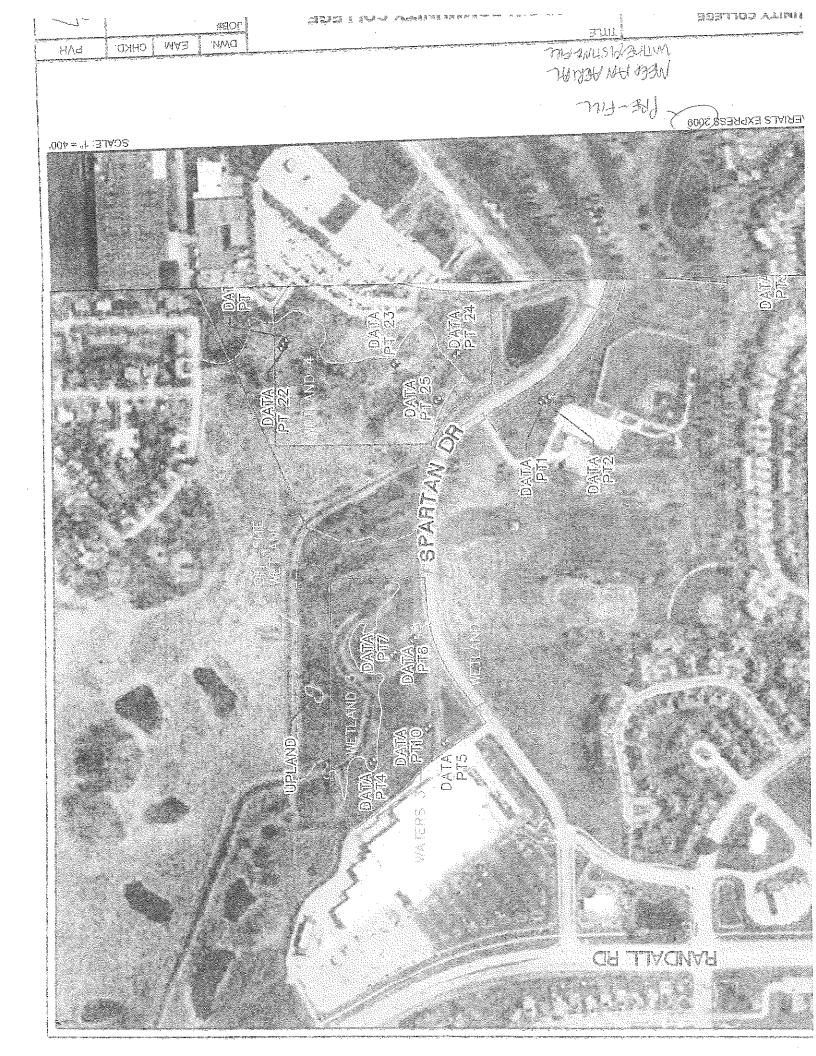


WILLS BURKE KELSEY ASSOCIATES

116 West Main Street, Suite 201 St. Charles, Illinois 60174-1854

Phone: 630-443-7755 Fax: 630-443-0533

www.wbkengineering.com



are included in Appendix C. See Table 1 below for the size and quality of the on-site aquatic resources.

Table 1: On-site Aquatic Resources

DELINEATED AREA	DATA POINT	TYPE	JURISDICTION	SIZE (Ac)	C- value	FQI
Waters 1	1	Otter Creek	USACE	1.07	3.3	11.3
Waters 2	5	Stormwater Basin	Elgin	0.65	3.0	7.3
Waters 3	10	Pond	Elgin	0.06	1.0	1.0
Wetland 1	3	Swale	Elgin	0.01	0	0
Wetland 2	6	Depression	USACE	0.07	2.5	6.1
Wetland 3	4	Marsh	USACE	3.51	4.4	18.6
Wetland 4	Data Point	Marsh	USACE	7.49		
TOTAL				12.86		

Each plant species is rated on a scale of 0 to 10, 0-representing non-native or noxious species commonly found in a variety of habitats, and 10 representing plants found only under specific ecological conditions. The Coefficient of Conservatism, C-value, of plants found in communities can give some insight as to the overall quality or value of the community. Communities containing an abundance of plants with a low C-value suggest that these communities have been disturbed in the past. Communities containing an abundance of plants with a high C-value suggest that specific ecological conditions necessary for their survival are intact thus disturbance is probably minimal and the community maintains at least some of its original integrity.

The following is a brief description of each identified data point. A list of the plant species observed and their corresponding indicator categories is listed for each wetland in Appendix C. A coefficient of conservatism (*C*-value) is also included for each plant species. Swink and Wilhelm established *C*-values to quantify a community's native attributes for comparative purposes. This analysis is required by both the USACE Chicago District and Kane County.

WATERS 1

Waters 1 is located along the south side of Spartan Drive and flows to the northwest as Otter Creek. As part of the Spartan Drive Extension project (completed in 2008), Waters 1 was impacted to create a crossing over the creek. Waters 1 continues to the northwest and eventually to the west off-site and eventually crosses under Randall Road. Between the two project areas north of Spartan Drive, Waters 1 runs between Wetland 3 and Wetland 4.

WATERS 2

Waters 2 is a stormwater detention basin that was constructed as part of the former Lowes building north of Spartan Drive. Waters 2 drains to the north through a flared end section into Waters 3. The detention basin is dominated by Broadleaf Cattail (*Typha laterifolia*) due to lack of maintenance.

WATERS 3

Waters 3 is located in a small depression just north of Waters 2. It appears that Waters 3 has formed from the discharge of Waters 2. The area is dominated by Narrow Leaved Cattail (*Typha angustifolia*). Waters 3 drains to the north by overland flow.

WETLAND 1

Wetland 1 is located south of the building on the south side of Spartan Drive at Renner Drive. The wetland appears to be a small, linear depression that receives stormwater runoff from surrounding areas. The area was partially vegetated with Reed Canary Grass (*Phalaris arundinacia*) and Common Burdock (*Arctium minus*) being the dominant species. WBK determined that hydrophytic vegetation was present by meeting the Dominance Test. The area is mapped as Drummer silty clay loam, a hydric soil. WBK confirmed the mapped soil typ and observed the Depleted Matrix (F3) hydric soil inidicator. WBK observed the Drift Deposits (B3), Sparsely Vegetated Concave Surface (D8), Geomorphic Position (D2), and FAC-Neutral Test (D5) Wetland Hydrology Indicators indicating that wetland hydrology was present.

WETLAND 2

Wetland 2 is located just north of Spartan Drive in the western project area. The wetland is a closed depression that may have been filled as part of permitted impacts of the Spartan Drive Extension. The wetland appears to drain to the north through a swale that is connected to Wetland 3. The swale did not meet wetland criteria (Data Point 7). The wetland was dominated by Red Cedar (*Juniperus virginiana creba*), Silver Maple (*Acer saccharinum*), Dark Green Rush (*Scirpus atrovirens*), Reed Canary Grass, and Narrow-Leaved Cattail (*Typha angustifolia*). Hydrophytic Vegetation was present as the Dominance Test and Prevalence Index requirements were met. The mapped soil is Drummer silty clay loam, a hydric soil. WBK confirmed the mapped soil typ and observed the Depleted Matrix (F3) hydric soil inidicator. WBK observed the Surface Water (A1), Saturation (A3), Geomorphic Position (D2), and FAC-Neutral Test (D5) Wetland Hydrology Indicators indicating that wetland hydrology was present.

WETLAND 3

Wetland 3 is located north of Spartan Drive in the western project area. A portion of this wetland was maintained as part of the Spartan Meadows Golf Course and has reverted to wetland due to the lack of intense maintenance that golf courses require. Wetland 3 extends off-site to the north and east and is part of the southern portion of a large wetland complex that includes a Otter Creek and a tributary to Otter Creek. Wetland 3 is not mapped in the Kane County ADID as High Functional Value Wetland. Wetland 3 has a native mean C-value of 4.4 and an FQI of 18.8. This wetland meets the USACE and Kane County Stormwater Ordianance (as administered by the City of Elgin) definition of a High Quality Aquatic Resource (HQAR). The dominant vegetation of the wetland was Bent Grass (Agrostis alba palustris). All of the vegetation identified by WBK is FAC or wetter. Hydrophytic Vegetation was present as the Dominance Test and Prevalence Index requirements were met. The mapped soil is Houghton Muck, a hydric soil. WBK observed a disturbed soil that was more similar to Drummer silty clay loam, a hydric soil and observed the Depleted Dark Surface (F7) hydric soil inidicator. WBK observed the Geomorphic Position (D2) and FAC-Neutral Test (D5) Wetland Hydrology Indicators indicating that wetland hydrology was present. WBK observed saturated conditions north of the creek within the project boundaries.

WETLAND 4

Wetland 4 is located west of the parking lots on the west side of Renner Drive. Wetland 4 is part of the larger wetland complex that is mapped as High Functional Value Wetland in the Kane County ADID. The boundaries of the wetland have been delineated by WBK using historical information. This wetland has been impacted through authorized and unauthorized actions since 1990. In 1991, ECC secured a permit from the USACE to impact 3.88 acres of Wetland 4 for the purpose of expanding the campus with buildings, Renner Drive, and parking lots on the west side of campus. The elevation of the wetland boundary was determined to be 806.0' at that time by Civil Design Group, Inc. In spring of 2010, ECC had a portion of the west parking lot expanded and impacted this wetland. The boundary of the wetland prior to the expansion was not surveyed.

To determine the pre-imapct boundary, WBK reviewed the soils map, historic delineations for the area, the US Fish and Wildlife National Wetlands Inventory, historic aerial photographs, and existing conditions of the site. The area where the parking lot extension was constructed is mapped as Drummer silty clay loam, a hydric soil. ECC has provided WBK with a delineation completed in 2009 by Planning Resources, Inc. (PRI) for the small stormwater basin to the north of the wetland. The boundaries of the delineation are adjacent to the project are for this project. The USACE provided WBK with an exhibit for the ECC Visual and Performing Arts Center Wetland Mitigation Plan prepared by Civil Design Group, Inc. dated 10-31-91. No additional information was available indicating the status of the wetlands post-construction. The US Fish and Wildlife (USFWS) National Wetlands Inventory (NWI) indicates that part of a mapped PEMCd Wetland (Palustrine, Emergent, Seasonal, Partially drained/ditched) extends into the parking lot extension. Most of the area of the temporary stormwater basin just south of the expanded parking lot is within the boundary of the PEMCd wetland. The eastern edge of the NWI wetland line roughly follows the 803' contour.

WBK then reviewed the aerial photographs from 2001,2002, 2004, 2006, and 2008. In each aerial photograph, WBK delineated the wetland boundary utilizing the guidance outlined in the Illinois Bulletin No. IL 190-8-4 Wetland Mapping Conventions prepared by the Natural Resources Conservation Service (NRCS) dated December 18, 1997. The aerial photographs the with the delineations are included in Appendix D.

WBK surveyed the elevation at several locations along the wetland boundary to determine the approximate elevation of the pre-impact wetland limits. The outlet of the stormwater basin at the corner of Spartan and Renner Drives is 799.48'. The elevation of the off-site discharge of Wetland 4 to Otter Creek at the southwest corner of the project area along Spartan Drive is 800.84'. The highest elevation of the wetland boundary at the toe of the parking lot embankment is 805.4' and slopes to the south to 802.27' near the temporary stormwater basin. North of the project area near the constructed stormwater basin, the elevation of the wetland boundary is 804.14'. Based on the elevation differences of the wetland boundary in areas that have not been impacted by the parking lot expansion, the approximate elevation of the impacted wetland boundary should be between 805' to the north and 802.3'.

Each of the wetland boundaries and delineated lines reviewed by WBK have been shown on Exhibit WI (Appendix E). Based on the information reviewed, WBK delineated the boundary of the pre-impact wetland. The pre-impact limits of Wetland 4 are shown on the Aerial Photograph Exhibit (Appendix A).

REFERENCE MATERIALS

The following reference materials were reviewed and utilized to assist in the field reconnaissance and the completion of this report. Exhibits 1-8 are included in Appendix A and the data sheets required by the USACE are included in Appendix B of this report.

LOCATION

The project area is located no the north and south sides of Spartan Drive between Randall Road and McLean Blvd in Elgin, Illinois (Exhibit 1). According to the USGS Topography Map of the Elgin Quadrangle of 1992, project area is located in the SW¼ of Section 21, Township 41N, Range 8E in Kane County, Illinois (Latitude: 42.017201° N, Longitude: 88.328182° W).

NATIONAL WETLAND INVENTORY

The National Wetland Inventory (NWI) of 1980 Elgin Quadrangle indicates a wetland on site (Exhibit 2A). One palustrine, emergent, seasonal, partially drained/ditched wetland (PEMCd) is located within the project area west of Renner Drive and extending west towards Randall Road. It is important to note that the NWI is only a large-scale guide and actual wetland types and locations may vary.

KANE COUNTY ADVANCED IDENTIFICATION

The Kane County Advanced Identification (ADID) Study dated August 2004 indicates the presence of a High Function Value wetland located within the project area west of Renner Drive (Exhibit 2B). The ADID Study also identifies an unrated stream in the western project area. It is important to note that the ADID is only a guide and actual jurisdictional wetland boundaries must be field delineated.

SOIL SURVEY

The USDA SSURGO Soil Data (February 2010) was reviewed for hydric soils on site (Exhibit 3). Hydric soils may indicate wetland conditions exist. The following soils are mapped within the project boundaries.

103A - Houghton muck - **Hydric**149A - Brenton silt loam
152A - Drummer silty clay loam - **Hydric**318C2 - Lorenzo loam
325B - Dresden silt loam
663B - Clare silt loam

HYDROLOGIC ATLAS

The US Geological Survey Hydrologic Investigations Atlas Map of the Elgin Quadrangle (HA-147, 1965) was reviewed to determine the location of regulatory floodplain on the site. The map indicates that no portion of the project has been flooded during 1952, 1954, 1957, 1960, or 1962 (Exhibit 4). The presence of floodplain can be indicative of wetland hydrology.

FLOOD INSURANCE RATE MAP

The Digital Flood Insurance Rate Map (D-FIRM), Kane County, Illinois, Community Panel Number 17089C0164H effective date, August 2009, was reviewed to determine the location

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Project/Site: ECC - West Area		_ C	ity/County: _	Elgin	Sampling Date: 5-17-11
applicant/Owner: Elgin Community Coll					State: IL Sampling Point: 4
					ge: S21, T41N, R83
andform (hillslope, terrace, etc.); Floor	dplain		Lo	cal relief (c	concave, convex, none): Concave
lope (%): 1% Lat: 42.01720	1 N	L	ong: 88.32	8182 W	Datum:
oil Map Unit Name: Houghton Muck					NWI or WWI classification:
re climatic / hydrologic conditions on th					
re Vegetation, Soil, or I					lormal Circumstances" present? Yes X No
re Vegetation, Soil, or I					eded, explain any answers in Remarks.)
				point lo	cations, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes X			Sampled	
Hydric Soil Present?	Yes X	No	1	•	d? YesX No
Wetland Hydrology Present?	YesX	No			
Remarks:	·				
TOTTATION Has asignifican					
/EGETATION – Use scientific r	latties of plant	S. Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:1.		% Cover	Species?	_Status_	Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
2					Total Number of Dominant
3.					Species Across Ali Strata: 1 (B)
4					Percent of Dominant Species
5					That Are OBL, FACW, or FAC: 100 (A/B)
Sapling/Shrub Stratum (Plot size:	,		= Total Cov	rer	Prevalence Index worksheet:
1					Total % Cover of: Multiply by:
2.					OBL species 65 x1 = 65
3					FACW species 15 x2 = 30
4					FACUspecies 10 x3 = 30 FACUspecies x4 = 0
5					Tribo apedico
Herb Stratum (Plot size: 3 ft)		_ = Total Co	ver	UPL species x 5 = U Column Totals: 90 (A) 125 (B)
Agrostis alba palustris	······································	60	Y	OBL	
2. Phalaris arundinacea		15	N	FACW	Prevalence Index = B/A =1.39
3. Poa pratense		10	N	FAC	Hydrophytic Vegetation Indicators:
4. Typha angustifolia		5	N	OBL	 X Dominance Test is >50% X Prevalence Index is ≤3.0¹
5					Morphological Adaptations ¹ (Provide supporting
6					data in Remarks or on a separate sneet)
7 8					Problematic Hydrophytic Vegetation ¹ (Explain)
9					
10					¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		90	_ = Total Co	over	
Woody Vine Stratum (Plot size:					Hydrophytic
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					- Present? Yes X No
2			= Total Co	over	

Remarks:

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Project/Site: ECC - West Area	C	ity/County: _	Elgin		Sampling Date:	5-17-11
Applicant/Owner: Elgin Community College				State: <u>IL</u>		
	s	ection, Tow	nship, Rang	ge: S21, T41N, R83	·	
				concave, convex, none):		
Slope (%): 12% Lat: 42.017201 N	L	ong: <u>88.32</u>	8182 W		Datum:	
Soil Map Unit Name: Drummer Silty Clay Loam				NWI or WWI c		
Are climatic / hydrologic conditions on the site typical for t						
Are Vegetation, Soil, or HydrologyX				Normal Circumstances" ¡		<u>X</u> No
Are Vegetation, Soil, or Hydrology			(If nee	eded, explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS – Attach site ma			point lo	cations, transects	s, important f	eatures, etc
Hydrophytic Vegetation Present? Yes X						
Hydric Soil Present? Yes			Sampled	d? Yes>	(No	
Wetland Hydrology Present? Yes X		WILLIN	i a wenan	u: (cs	·	
Remarks:						
Pond was created for stormwater management	,		,			
VEGETATION – Use scientific names of plan	ts.		-			
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<u>Tree Stratum</u> (Plot size:) 1	% Cover			Number of Dominant S That Are OBL, FACW		(A)
2						
3.				Total Number of Domi Species Across All Str		(B)
4				Percent of Dominant	Species	
5				That Are OBL, FACW	, or FAC:	100 (A/B
ContinuiChruh Stratum (Blataine)		= Total Cov	er	Prevalence Index wo	orksheet:	
Sapling/Shrub Stratum (Plot size:)				Total % Cover of		tiply by:
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3.				FACW species	10 x2=_	20
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5				FACU species		
		= Total Cov	/eг		x5=_	
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2. Phalaris arundinacia	10		FACW	Prevalence Ind	ex = B/A =	1.13
3, Eleochris erythropoda	1	N	OBL	Hydrophytic Vegeta	tion Indicators:	
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7				Problematic Hyd		
8						- , ,
9.				¹ Indicators of hydric	soil and wetland	hydrology must
10			·	be present, unless d	isturbed or proble	ematic.
Woody Vine Stratum (Plot size:)		_ = Total Co	vei			
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rofile Description: (Describe to th	e depth needed to docun	nent the indicator or conf	irm the absence of indicators.)
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ype: C=Concentration, D=Depletic	n, RM=Reduced Matrix, C	S=Covered or Coated San	d Grains. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ :
ydric Soil Indicators:	•		
Histosol (A1)		Gleyed Matrix (S4)	Coast Prairie Redox (A16)
Histic Epipedon (A2)		Redox (S5)	Iron-Manganese Masses (F12)
Black Histic (A3)		ed Matrix (S6)	Other (Explain in Remarks)
Hydrogen Sulfide (A4)		Mucky Mineral (F1)	
Stratified Layers (A5)		Gleyed Matrix (F2) ed Matrix (F3)	
2 cm Muck (A10)		Dark Surface (F6)	
 Depleted Below Dark Surface (A Thick Dark Surface (A12) 		ed Dark Surface (F7)	³ Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	 -	Depressions (F8)	wetland hydrology must be present,
5 cm Mucky Peat or Peat (S3)		Dopiosisine (/ -)	unless disturbed or problematic.
Restrictive Layer (if observed):			
Type:			
Depth (inches):	·		Hydric Soil Present? Yes No
Remarks:			
YDROLOGY			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two require
Primary Indicators (minimum of one			
X Surface Water (A1)		tained Leaves (89)	Surface Soil Cracks (B6)
High Water Table (A2)	Aquatic		Drainage Patterns (B10)
Saturation (A3)		uatic Plants (B14)	Dry-Season Water Table (C2)
Water Marks (B1)		en Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)		d Rhizospheres on Living F	
Drift Deposits (B3)		ce of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent	Iron Reduction in Tilled So	ils (C6) Geomorphic Position (D2)
Iron Deposits (B5)		ick Surface (C7)	X FAC-Neutral Test (D5)
Inundation Visible on Aerial Ima		or Well Data (D9)	
Sparsely Vegetated Concave S	Surface (B8) Other (E	Explain in Remarks)	
Field Observations:			
Surface Water Present? Yes	No Depth	(inches):	
	No Depth		
	No Depth		Wetland Hydrology Present? Yes X No
(includes capillary fringe)			
Describe Recorded Data (stream g	auge, monitoring well, aeri	al photos, previous inspec	tions), if available:
Remarks:			
			•
Hydrology created from stormwater	r runoff directed runoff dire	acted to basin.	
			·

	Ci	tv/Countv:	Elgin	Sampling Date: 5-17-11
				State: IL Sampling Point: 6
	S	ection, Tow	nship, Ran	ge: S21, T41N, R83
				concave, convex, none): Concave
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ames of plar	nts.			
3	Absolute			Dominance Test worksheet:
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				Total Number of Dominant Species Across All Strata: 5 (B)
				Percent of Dominant Species That Are OBL, FACW, or FAC: 80 (A/B)
	1	= Total Co	/eг	
)			Prevalence Index worksheet:
	. 3	<u>Y</u>	FACW	Total % Cover of: Multiply by: OBL species 25 x 1 = 25
				OBL species 25 x 1 = 25 FACW species 23 x 2 = 46
				FAC species 1 x3 = 3
			,	FACU species3 x 4 =12
		- Total Co		UPL species x 5 =0
)		- Total Co	ve:	Column Totals: 52 (A) 86 (B)
	15	Y	OBL	
	15	<u> </u>	FACW	Prevalence Index = B/A =1.65
		Y	OBL	Hydrophytic Vegetation Indicators:
	5	. <u> N</u>		X Dominance Test is >50%
		. <u>N</u>		 ✓ Prevalence Index is ≤3.0¹ Morphological Adaptations¹ (Provide supporting
	1	<u> </u>		data in Remarks or on a separate sheet)
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	· · · · · · · · · · · · · · · · · · ·			-
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		- Total O		be present, unless disturbed or problematic.
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re or on a seria				
re or on a sepa	indic officer.			
	ege Iplain 1 N y Loam e site typical for flydrology tach site ma Yes X Yes X Yes X The site in the si	lplain 1 N Loy Loam e site typical for this time of year tydrology significantly do thydrology naturally problem. YesX No YesX No YesX No YesX No YesX No 1 1 ames of plants. 1 15 ft 1 1 5 ft 1 1 5 ft 1 1 1 1 1 1 1	Section, Tow Section Sect	Section, Township, Ran Local relief (1 N

Santuana Font.	Sampling	Point:	6
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Depth	Matrix	<u> </u>		ox Feature	9S	Loc ²	·	Remarks
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc*_	<u>Texture</u> SICL	Kelliaika
2	10yr2/1	100						<u> </u>
10	10yr2/1	100	10yr5/6	2	_ <u>L</u>	_ PL	SIC	
			10yr4/1	2	D	PL		
20	10yr4/1	100	10yr5/6	5	L.	PL	SIC	
- · · ·								
								
	<u></u>							D. D. D. Linius Bankaria
	oncentration, D=De	oletion, RM=	Reduced Matrix, C	S=Covere	ed or Coa	ited Sand		Location: PL=Pore Lining, M=Matrix. ors for Problematic Hydric Soils ³ :
-	Indicators:		04	Ol 1 N	4 - Luis - 200 A			ast Prairie Redox (A16)
Histoso				Gleyed M)	_	n-Manganese Masses (F12)
	pipedon (A2)			Redox (S				ner (Explain in Remarks)
	istic (A3)			ed Matrix		41)	00	iei (Expiaii iii Neiliaiks)
	en Sulfide (A4)			Mucky M	•			*
	d Layers (A5)			Gleyed N		.)	•	
	uck (A10)	oo (A44)	X Deple	ted Matrix Dark Sur				
	d Below Dark Surfa	ce (A11)		ted Dark S			3Indics	ators of hydrophytic vegetation and
	ark Surface (A12)		Deple Redox			1)		tland hydrology must be present,
	Mucky Mineral (S1)	201	Redox	Chebiess	ions (ro)			less disturbed or problematic.
	ucky Peat or Peat (S Layer (if observed							iooo dialahad ay pirana
Type:	Edyor (ii oboor tod							
							Hydric	Soil Present? Yes X No
Remarks:	iches):					·		
Remarks:								
Remarks:)GY							
Remarks: YDROLC Wetland Hy			red; check all that	apply)				condary Indicators (minimum of two require
YDROLO Wetland Hy	OGY /drology Indicators			apply)	aves (B9)		condary Indicators (minimum of two require Surface Soil Cracks (B6)
YDROLC Wetland Hy Primary Ind X Surface	OGY /drology Indicators icators (minimum of		Water-S)		
YDROLC Wetland Hy Primary Ind X Surface High W	OGY odrology Indicators icators (minimum of Water (A1) later Table (A2)		Water-S Aquatic	itained Le Fauna (B	13))	Sec	Surface Soil Cracks (B6)
YDROLC Wetland Hy Primary Ind X Surface High W X Saturat	OGY odrology Indicators icators (minimum of Water (A1) ater Table (A2) ion (A3)		Water-S Aquatic True Ad	itained Le Fauna (B uatic Plar	13) nts (B14)		Sec	Surface Soil Cracks (B6) Drainage Patterns (B10)
YDROLO Wetland Hy Primary Ind X Surface High W X Saturat Water I	OGY /drology Indicators icators (minimum of water (A1) later Table (A2) ion (A3) Marks (B1)		Water-8 Aquatic True Ac Hydrogo	stained Le Fauna (B juatic Plar en Sulfide	13) nts (B14) Odor (C	1)	Sec	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2)
YDROLO Wetland Hy Primary Ind X Surface High W X Saturat Water I Sedime	OGY /drology Indicators icators (minimum of water (A1) /ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2)		Water-8 Aquatic True Ac Hydrog Oxidize	stained Le Fauna (B juatic Plar en Sulfide d Rhizosp	13) nts (B14) Odor (C ² oheres on	1) Living Ro	Sec	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
YDROLO Wetland Hy Primary Ind X Surface High W X Saturat Water I Sedime Drift De	OGY /drology Indicators icators (minimum of water (A1) /ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3)		Water-8 Aquatic True Ac Hydrogo Oxidize Preseno	Stained Le Fauna (B juatic Plar en Sulfide d Rhizosp ce of Redi	13) Its (B14) Odor (C1 Oheres on	1) Living Ro (C4)	Seconds (C3)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
YDROLO Wetland Hy Primary Ind X Surface High W X Saturat Water I Sedime Drift De	ordy Indicators Indic		Water-S Aquatic True Ac Hydrog Oxidize Present	Stained Le Fauna (B Juatic Plar en Sulfide d Rhizosp ce of Redi Iron Redu	13) hts (B14) Odor (Croheres on uced Iron uction in 1	1) Living Ro	Sec 	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
YDROLC Wetland Hy Primary Ind X Surface High W X Saturat Water I Sedime Drift De Algal M Iron De	order John John John John John John John John	s: one is requi	Water-S Aquatic True Ac Hydrog Oxidize Present Recent Thin Mu	stained Le Fauna (B Juatic Plar en Sulfide d Rhizosp ce of Redu Iron Redu uck Surfac	13) Ints (B14) Odor (Croheres on uced Iron uction in Toe (C7)	1) Living Ro (C4)	Sec 	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
YDROLO Wetland Hy Primary Ind X Surface High W X Saturat Water I Sedime Drift De Algal M Iron De	oGY rdrology Indicators icators (minimum of a Water (A1) later Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aeria	one is requir	Water-S Aquatic True Ac Hydrogo Oxidize Present Recent Thin Mo T) Gauge	Stained Le Fauna (B Juatic Plar en Sulfide d Rhizosp ce of Redi Iron Redu uck Surfac or Well Da	13) Ints (B14) Odor (Croheres on uced Iron uction in The (C7) Interest (1) Living Ro (C4) Filled Soils	Sec 	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
YDROLO Wetland Hy Surface High W X Saturat Water I Sedime Drift De Algal M Iron De Inundat Sparse	oGY /drology Indicators icators (minimum of water (A1) /drol (A2) ion (A3) /darks (B1) ent Deposits (B2) eposits (B3) /darks (B4) posits (B5) tion Visible on Aeria ly Vegetated Conca	one is requir	Water-S Aquatic True Ac Hydrogo Oxidize Present Recent Thin Mo T) Gauge	Stained Le Fauna (B Juatic Plar en Sulfide d Rhizosp ce of Redi Iron Redu uck Surfac or Well Da	13) Ints (B14) Odor (Croheres on uced Iron uction in The (C7) Interest (1) Living Ro (C4) Filled Soils	Sec 	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Stunted or Stressed Plants (D1) Geomorphic Position (D2)
YDROLO Wetland Hy Primary Ind X Surface High W X Saturat Water I Sedime Drift De Algal M Iron De Inundat Sparse	order of the control	one is requir one is requir I Imagery (B ve Surface (Water-S Aquatic True Ac Hydrog Oxidize Present Recent Thin Mo T) Gauge B8) Other (Stained Le Fauna (B quatic Plar en Sulfide d Rhizosp ce of Redu Iron Redu uck Surfac or Well Da Explain in	nts (B14) Odor (Coheres on uced Iron uction in Toce (C7) ata (D9) Remarks	1) Living Ro (C4) Filled Soils	Seconds (C3)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
YDROLC Wetland Hy Primary Ind X Surface High W X Saturat Water I Sedime Drift De Algal M Iron De Inundat Sparse Field Obse	order of the control	one is required in the second	Water-S Aquatic True Ad Hydrogo Oxidize Present Recent Thin Mo Gauge B8) Other (Stained Le Fauna (B Juatic Plar Jen Sulfide Rhizosp Jen of Redi Jron Redu Jick Surfac Jick	nts (B14) Odor (Coheres on uced Iron uction in The (C7) ata (D9) Remarks	1) Living Rod (C4) Filled Soils	Seconds (C3)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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YDROLC Wetland Hy Primary Ind X Surface High W X Saturat Water I Sedime Drift De Algal M Iron De Inundat Sparse Field Obse Surface Wa Water Table Saturation I	order of the control	I Imagery (B ve Surface (Yes Yes Yes	Water-S	stained Le Fauna (B juatic Plar en Sulfide d Rhizosp ce of Redi lron Redu uck Surfac or Well Da Explain in (inches): (inches): (inches):	nts (B14) Odor (Croheres on uced Iron uction in The (C7) ata (D9) Remarks	1) Living Rod (C4) Filled Soils	ots (C3) (C6) X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
YDROLC Wetland Hy Primary Ind X Surface High W X Saturat Water I Sedime Drift De Algal M Iron De Inundat Sparse Field Obse Surface Wa Water Table Saturation I	order of the control	I Imagery (B ve Surface (Yes Yes Yes	Water-S	stained Le Fauna (B juatic Plar en Sulfide d Rhizosp ce of Redi lron Redu uck Surfac or Well Da Explain in (inches): (inches): (inches):	nts (B14) Odor (Croheres on uced Iron uction in The (C7) ata (D9) Remarks	1) Living Rod (C4) Filled Soils	ots (C3) (C6) X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9 Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
YDROLC Wetland Hy Primary Ind X Surface High W X Saturat Water I Sedime Drift De Algal M Iron De Inundar Sparse Field Obse Surface Wa Water Table Saturation I (includes ca Describe Re	order of the control	I Imagery (B ve Surface (Yes Yes Yes	Water-S	stained Le Fauna (B juatic Plar en Sulfide d Rhizosp ce of Redi lron Redu uck Surfac or Well Da Explain in (inches): (inches): (inches):	nts (B14) Odor (Croheres on uced Iron uction in The (C7) ata (D9) Remarks	1) Living Rod (C4) Filled Soils	ots (C3) (C6) X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
YDROLC Wetland Hy Primary Ind X Surface High W X Saturat Water I Sedime Drift De Algal M Iron De Inundat Sparse Field Obse Surface Wa Water Table Saturation I	order of the control	I Imagery (B ve Surface (Yes Yes Yes	Water-S	stained Le Fauna (B juatic Plar en Sulfide d Rhizosp ce of Redi lron Redu uck Surfac or Well Da Explain in (inches): (inches): (inches):	nts (B14) Odor (Croheres on uced Iron uction in The (C7) ata (D9) Remarks	1) Living Rod (C4) Filled Soils	ots (C3) (C6) X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)
YDROLC Wetland Hy Primary Ind X Surface High W X Saturat Water I Sedime Drift De Algal M Iron De Inundar Sparse Field Obse Surface Wa Water Table Saturation I (includes ca	order of the control	I Imagery (B ve Surface (Yes Yes Yes	Water-S	stained Le Fauna (B juatic Plar en Sulfide d Rhizosp ce of Redi lron Redu uck Surfac or Well Da Explain in (inches): (inches): (inches):	nts (B14) Odor (Croheres on uced Iron uction in The (C7) ata (D9) Remarks	1) Living Rod (C4) Filled Soils	ots (C3) (C6) X	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)

oject/Site: ECC - West Area		Cit	ty/County: _	Elgin		Sampling l	Date: _5	-17-11	
plicant/Owner: Elgin Community College					State: IL	Sampling I	Point:	,	
estigator(s): Patrick VerHalen		Se	ection. Tow	nshìp, Rang	e: S21, T41N, R83				
ndform (hillslope, terrace, etc.): Floodpl			Lo	cal relief (c	oncave, convex, none	e): Concave			
pe (%): 12% Lat: 42.017201	V	1 •	ng: 88.32	8182 W	,	Datum:			
pe (%): 1270 Lat. 42.01201.	-		g		NWi or WW	— I classification	n:		
1 Map Unit Name: Lorenzo Loam			2 V22 >	ć No	(If no explain in	Remarks.)	-		
e climatic / hydrologic conditions on the s				\ \\ \	ormal Circumstances	s" present?	∕es >	(No	
Vegetation, Soil, or Hyd					ded, explain any ans				
Vegetation, Soil, or Hyd				•				atures	, etc.
				pomero					
lydrophytic Vegetation Present?	Yes			Sampled		N.	¥		
lydric Soil Present? Vetland Hydrology Present?	Yes Yes	No X	withi	n a Wetlan	1? Yes _	NO	^_	-	
temarks:				•					
EGETATION – Use scientific na	mes of plant								
Ott (DI-1-1	\	Absolute % Cover	Dominant Species?	Indicator	Dominance Test w				
ree Stratum (Plot size:					Number of Dominal That Are OBL, FAC			2	(A)
•									
					Total Number of Do Species Across All			4	(B)
					Description of Domina	nt Charies			
-					Percent of Domina That Are OBL, FAC			50	(A/B
		0	= Total Co	ver	Prevalence Index		 .		
apling/Shrub Stratum (Plot size:	15 ft)	•	v	EACIAL	Total % Cover		Multi	nlv hv:	
. Acer negundo		2		FACW	OBL species				_
				17(0)	FACW species				
3					FAC species	80 x	3 =	240	
				· 	FACU species				_
			= Total Co	ver		>			
Herb Stratum (Plot size: 1.5 ft)		•		Column Totals:	84 (A) _	248	(B
Galium aparine		35	- <u>Y</u>	FACU	Duvidana	ndex = B/A =	_	2.95	
Solidago altissima		35	Y	FACU	Hydrophytic Veg				
Taraxacum officinale			_ <u>N</u>	FACU	Dominance T				
Dacus carota		5	N	FACU	Prevalence Ir				-
5					Morphologica	al Adaptations	¹ (Provi	de suppo	orting
6					ˈ data in Re	marks or on a	a separ	ate sheet	t)
7					Problematic I	Hydrophytic V	/egetati	on¹ (Expl	lain)
8	 ,				-				
•					Indicators of hyd be present, unles	ric soil and w	etiand h	rydrology matic	y must
9					- i de dieselit, unies	O DISTUINCY O	. Picoic		
9			= Total C	over					
9	· · · · · · · · · · · · · · · · · · ·		_ = Total C	over					
9)	80			Hydrophytic				
9)	80				Yes	No	. <u>X</u>	-

Sampling	Point:	7

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Depth	Matrix			x Features			- .	* ************************************
nches)	Color (moist)	<u> % (</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
4	10yr2/1	90	10yr3/3	10	_ <u>L</u>	M	SICL	
				-				· .
				-				
		·				·		
		- 						
:						1010	21	ocation: PL=Pore Lining, M=Matrix.
	ncentration, D=Dep	letion, RM=Re	duced Matrix, C	S=Covered	or Coate	ed Sand G		s for Problematic Hydric Soils ³ :
ydric Soil I				o	C (0.0			t Prairie Redox (A16)
_ Histosol	•			Gleyed Ma				Manganese Masses (F12)
	ipedon (A2)			Redox (S5) d Matrix (S				r (Explain in Remarks)
Black His	n Sulfide (A4)			Mucky Min				(2.4)
	Layers (A5)			Gleyed Ma				•
_ Cratifica 2 cm Mu				ed Matrix (F				
-•	Below Dark Surfac	e (A11)		Dark Surfa				
_ •	rk Surface (A12)	,		ed Dark Su)		ers of hydrophytic vegetation and
	ucky Mineral (S1)	•	Redox	Depression	ns (F8)			and hydrology must be present,
	cky Peat or Peat (S						unle	ss disturbed or problematic.
	ayer (if observed)	:						
Type: Ro	ck/Gravel						1	
Depth (inc	41, 4-6						1	15 M. N.
	mes). —			•			Hydric So	oil Present? Yes No^_
	mes). —						Hydric So	oil Present? Yes No
emarks:		·					Hydric So	oil Present? Yes No <u>X</u>
emarks:	GY						Hydric So	oil Present? Yes No^
emarks: /DROLO /etland Hyd	GY Irology Indicators		- chapte all that					
emarks: /DROLO /etland Hydrimary Indic	GY drology Indicators ators (minimum of				(FD)		Seco	ndary Indicators (minimum of two required
PROLO Vetland Hydrimary Indication	GY Trology Indicators ators (minimum of Water (A1)		Water-St	tained Leav			Secon	ndary Indicators (minimum of two required Surface Soil Cracks (B6)
POROLO OTHER TORONO OTHER TO	GY Trology Indicators ators (minimum of Water (A1) ter Table (A2)		Water-St Aquatic I	tained Leav Fauna (B13	3)		Secoi	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Drainage Patterns (B10)
OROLO Vetland Hydrimary Indic Surface High Wa Saturatio	GY Irology Indicators ators (minimum of Water (A1) ter Table (A2) on (A3)		Water-St Aquatic I True Aqu	tained Leav Fauna (B13 uatic Plants	3) s (B14)		SecorS	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Orainage Patterns (B10) Ory-Season Water Table (C2)
PROLO Petland Hydrimary Indic Surface High Water M	GY Irology Indicators ators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1)		Water-Si Aquatic I True Aqu Hydroge	tained Leav Fauna (B13 uatic Plants in Sulfide C	3) s (B14) odor (C1)		SeconS	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Orainage Patterns (B10) Ory-Season Water Table (C2) Crayfish Burrows (C8)
PROLO Petland Hydrimary Indic Surface High Wa Saturatic Water M Sedimer	GY drology Indicators ators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) it Deposits (B2)		Water-Si Aquatic I True Aqu Hydroge Oxidized	tained Leav Fauna (B13 uatic Plants n Sulfide C I Rhizosphe	3) s (B14) odor (C1) eres on L	iving Roo	Secon S C C ts (C3)S	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Orainage Patterns (B10) Ory-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
/DROLO /etland Hydrimary Indic Surface High Wa Saturatic Water M Sedimer Drift Der	GY frology Indicators ators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) posits (B3)		Water-Si Aquatic I True Aqu Hydroge Oxidized	tained Leav Fauna (B13 uatic Plants in Sulfide C I Rhizosphe e of Reduc	3) s (B14) odor (C1) eres on L ed Iron (G	iving Roo C4)	Secon S C S C S C S ts (C3) S S	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Orainage Patterns (B10) Ory-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
/DROLO Vetland Hydrimary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma	GY frology Indicators ators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) oosits (B3) t or Crust (B4)		Water-Si Aquatic I True Aqu Hydroge Oxidized Presenc	tained Leav Fauna (B13 uatic Plants in Sulfide C I Rhizosphe e of Reduc ron Reduct	3) s (B14) Odor (C1) eres on L ed Iron (G	iving Roo C4)	Secon Secon Significant Sign	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Orainage Patterns (B10) Ory-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
/DROLO Vetland Hydrimary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma	GY frology Indicators ators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5)	one is required	Water-Si Aquatic I True Aqu Hydroge Oxidized Presenc Recent I Thin Mu	tained Leav Fauna (B13 uatic Plants in Sulfide C I Rhizosphe e of Reduct ron Reduct ck Surface	3) s (B14) odor (C1) eres on L red Iron (G tion in Til (C7)	iving Roo C4)	Secon Secon Significant Sign	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Orainage Patterns (B10) Ory-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
POROLO Petland Hydrimary Indic Surface High Wa Saturatic Water M Sedimer Drift Dep Algal Ma Iron Dep	GY Irology Indicators ators (minimum of Water (A1) ter Table (A2) on (A3) arks (B1) at Deposits (B2) osits (B3) at or Crust (B4) osits (B5) on Visible on Aerial	one is required	Water-Si Aquatic I Aquatic I True Aqu Hydroge Oxidized Presenc Recent I Thin Mu Gauge of	tained Leav Fauna (B13 uatic Plants in Sulfide C I Rhizosphe e of Reduct ron Reduct ck Surface or Well Data	B) s (B14) Odor (C1) eres on L red Iron (C) tion in Til (C7) a (D9)	iving Roo C4)	Secon Secon Significant Sign	ndary Indicators (minimum of two required Surface Soil Cracks (B6) Orainage Patterns (B10) Ory-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)
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Project/Site: ECC - West Area	City/0	County: Elgin		Sampling Date:	5-17-11	
Applicant/Owner: Elgin Community College			State: IL	Sampling Point:	_10	
nvestigator(s): Patrick VerHalen	Sect	ion, Township, Rang	e: S21, T41N, R83			
Landform (hillslope, terrace, etc.): Floodplain		Local relief (c	oncave, convex, none):	Concave		
	Long			Datum:		
Soil Map Unit Name: Lorenzo Loam			NWI or WWI c	lassification:		
Are climatic / hydrologic conditions on the site type	cal for this time of year?	Yes X No	(If no, explain in F	Remarks.)		
Are Vegetation, Soil, or Hydrolog			lormal Circumstances"		X_ No	
Are Vegetation, Soil, or Hydrolog			ded, explain any answe			
SUMMARY OF FINDINGS - Attach s					features	, etc
	X No					
	X No	Is the Sampled		X No		
	X No	within a Wetland	ir tes <u>7</u>	<u> </u>		
Remarks:						
Hydrology provided by outlet from waters 2.				٠,		
VEGETATION – Use scientific names	-	710	Balliana Tarana	rkahaet:		
Tree Stratum (Plot size:)		ominant Indicator pecies? Status	Dominance Test wor Number of Dominant			
1			That Are OBL, FACW		2	(A)
2			Total Number of Dom	inant		
3.			Species Across All St		2	(B)
4.			Percent of Dominant	Species		
5.			That Are OBL, FACW		100	(A/B
		Total Cover	Prevalence Index we	orksheet:		
Sapling/Shrub Stratum (Plot size:		!	Total % Cover of		tiply by:	
1.			OBL species			
2			III	30 x 2 = _		_
4			FAC species		_	
5			FACU species	x 4 = _	0	_
<u> </u>		Total Cover	UPL species	x 5 = _	0	
Herb Stratum (Plot size: 1 m)			Column Totals:	100 (A)	130	(B)
Typha angustifolia		Y OBL	Drevelence Ind	iex = B/A =	1.30	
2. Phalaris arundinacea		Y FACW	Hydrophytic Vegeta			
3			X Dominance Test		1	
4			X Prevalence Inde			
5			Morphological A	Adaptations ¹ (Pro	vide suppo	orting
6			data in Rema	arks or on a sepa	rate sheet	t)
7		<u></u>	Problematic Hyd	drophytic Vegeta	tion¹ (Expl	ain)
8.						
9			¹ Indicators of hydric be present, unless d	soil and wetland	hydrology ematic	/ must
10	100 =	Total Cover	pe present, unless o	neramen of brops		
Woody Vine Stratum (Plot size:						
1			Hydrophytic Vegetation			
2.			Present?	Yes X N	io	
	=	Total Cover			÷	
Remarks: (Include photo numbers here or on	a congrato about)					

epth <u>Matr</u>			Redox Feature		. 2	T., d.,	Remarks
ches) Color (moist		Color (moist	<u> %</u>	Type ¹	_Loc²	<u>Texture</u> SIC	Remains
14 10yr2/1	100	5yr 4/6	5		 PL	SIC	
30 10yr2/1	100			. <u>~</u>	- <u> </u>		
		10yr4/1	2				
ype: C=Concentration, D=	Depletion, RM	=Reduced Matr	rix, CS=Covere	d or Coa	ted Sand		ocation: PL=Pore Lining, M=Matrix.
rdric Soil Indicators:			•			Indicator	s for Problematic Hydric Soils ³ :
_ Histosol (A1)			andy Gleyed M			Coas	st Prairie Redox (A16) Manganese Masses (F12)
_ Histic Epipedon (A2)			andy Redox (S tripped Matrix (Othe	r (Explain in Remarks)
Black Histic (A3)		_	ripped Matrix (pamy Mucky M		1)	0,110	· Ameliania na caramana,
_ Hydrogen Sulfide (A4) Stratified Layers (A5)			parny Mucky M pamy Gleyed N				
_ Stratified Layers (A5) _ 2 cm Muck (A10)			epleted Matrix		•		
_ Depleted Below Dark S	urface (A11)		edox Dark Sur				
Thick Dark Surface (A1		D	epleted Dark S	Burface (F	7)		ors of hydrophytic vegetation and
Sandy Mucky Mineral (•	R	edox Depressi	ons (F8)		wetla	and hydrology must be present,
5 cm Mucky Peat or Pe					·	unle	ss disturbed or problematic.
estrictive Layer (if obser	ved):						
Type:							
· J F - ·							MBAS Von Y No
Depth (inches):emarks:		1-5				Hydric S	oil Present? Yes X No
Depth (inches):						Hydric S	oil Present? Yes X No
Depth (inches):						Hydric S	oil Present? Yes X No
Depth (inches):emarks: /DROLOGY /etland Hydrology Indica	tors:		that apply				
Depth (inches):emarks: */DROLOGY */etland Hydrology Indicators (minimum	tors:	uíred; check all		avec (PO		Seco	ndary Indicators (minimum of two require
Depth (inches):emarks: **TOROLOGY **Jetland Hydrology Indication (minimum of the content	tors:	uired; check all	iter-Stained Le			Seco	ndary Indicators (minimum of two require Surface Soil Cracks (B6)
Depth (inches):emarks: /DROLOGY /etland Hydrology Indicators (minimumumumumumumumumumumumumumumumumumu	tors:	uired; check all <u>X</u> Wa Aqu	iter-Stained Le uatic Fauna (B	13))	Seco	ndary Indicators (minimum of two require Surface Soil Cracks (B6) Drainage Patterns (B10)
Depth (inches):emarks: /DROLOGY /etland Hydrology Indication (minimum of the content of th	tors:	uired; check all <u>X</u> Wa Aqu Tru	iter-Stained Le uatic Fauna (B ue Aquatic Plar	13) nts (B14)		Seco	ndary Indicators (minimum of two require Surface Soil Cracks (B6) Orainage Patterns (B10) Dry-Season Water Table (C2)
Depth (inches):emarks: POROLOGY Vetland Hydrology Indication (minimum of the content of t	tors: n of one is req	uired; check all X Wa — Aqu — Tru — Hyo	iter-Stained Le uatic Fauna (B ue Aquatic Plar drogen Sulfide	13) nts (B14) Odor (C1	1)	Seco	ndary Indicators (minimum of two require Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8)
Depth (inches):emarks: POROLOGY Vetland Hydrology Indication (incompany Indicators (incinimum and Indicators (incompany Indic	tors: n of one is req	uired; check all X Wa Aqu Tru Hyo Oxi	iter-Stained Le uatic Fauna (B ue Aquatic Plar drogen Sulfide idized Rhizosp	13) nts (B14) Odor (Cr nheres on	1) Living Ro	Seco	Indary Indicators (minimum of two require Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
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Depth (inches): emarks: POROLOGY Petland Hydrology Indication (minimum of the context of the c	tors: n of one is required. erial Imagery nncave Surface Yes Yes Yes	Wared: check all	aler-Stained Le uatic Fauna (B ue Aquatic Plar drogen Sulfide idized Rhizosp esence of Redr cent Iron Redu in Muck Surface auge or Well D her (Explain in repth (inches): lepth (inches):	13) hts (B14) Odor (Cr heres on uced Iron uction in Thee (C7) ata (D9) Remarks	1) Living Ro (C4) Filled Soils	Seco	ndary Indicators (minimum of two require) Surface Soil Cracks (B6) Drainage Patterns (B10) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) FAC-Neutral Test (D5)

Reset Form		Form	

Project/Site: ECC Parking Lot Expansion	City/County: Elgin/Kane County Sampling Date: March				: March 20	, 2010		
Applicant/Owner: Elgin Community College					Sampling Point: 10			
Investigator(s): Patrick Kelsey								
Landform (hillslope, terrace, etc.): Floodplain						concave		
Slope (%): Lat: 42.017294 N								
Soil Map Unit Name: Houghton Muck					NWI or WWI cla			
Are climatic / hydrologic conditions on the sit					Normal Circumstances" p		X: No	
Are Vegetation, Soil, or Hydr								
Are Vegetation, Soil, or Hydr	ology	naturally pro	blematic?	(If ne	eded, explain any answer	s in Remarks.)	
SUMMARY OF FINDINGS - Attac	:h site map	showing	sampling	g point lo	cations, transects	important	features	, etc.
Hydrophytic Vegetation Present?	res_X_	No						
	res X		!	e Sampled		No		
	res X		with	in a Wetlan	d? Yes X	NO		
Remarks:								
Area is part of a large marsh that directly al	buts an Unnai	med Tributary	to Otter Cr	eek				
				· · · · · · · · · · · · · · · · · · ·				
VEGETATION – Use scientific nam	nes of plant	s.						
Tree Stratum (Plot size: 30m	`	Absolute % Cover	Dominant Species?		Dominance Test work			
					Number of Dominant S That Are OBL., FACW.		2	(A)
					, .			. ,
Acer sacchannum Populus deltoides				FAC	Total Number of Domir Species Across All Stra		2	(B)
4.			-		'			ν-,
5					Percent of Dominant S That Are OBL, FACW,		100	(A/B)
0			_ = Total Co	ver				(,,,
Sapling/Shrub Stratum (Plot size:					Prevalence Index wo			
1. Salix interior		5	<u>n</u>	OBL	Total % Cover of:		ultiply by:	_
2				,	OBL species4			
3					FACW species6			
4			- -		FAC species			
5					FACU species			,
Herb Stratum (Plot size: 0.5m)	5	_ = Total Co	ver	Column Totals: 1			 (B)
1. Arctium minus	/	5	n	UPL	Column rotals.	<u> </u>		
2 Solidago altissima		5	n	FACU	Prevalence Inde	x = B/A =	1.92	_
3. Phalaris arundinacea		50	у	FACW	Hydrophytic Vegetat	ion Indicator	s:	
4. Solidago gigantea		5	n	FACW	X Dominance Test i			
5. Typha angustifolia		10	_ <u>_ n</u>	OBL	X Prevalence Index			
6. Typha latifolia		25	<u>y</u>	OBL	Morphological Ad	aptations ¹ (Pr	ovide suppo	rting '
7					data in Remar Problematic Hydr			
8					Problematic Hydr	obuyuc veger	alion (Expir	anı)
9					Indicators of hydric s	oil and wetlan	d hydrology	must
10					be present, unless dis	sturbed or prol	blematic.	
Maria Maria Ottobar (Cl. 1)		100	_ = Total C	over				
Woody Vine Stratum (Plot size:					Hydrophytic			
1					Vegetation			
2			= Total C	over	- Present?	'esX_	No	
			10(a) C	O 4 CI				
Remarks: (Include photo numbers here of	or on a separa	ate sheet.)						
					· · · · · · · · · · · · · · · · · · ·			/

Sampling Poi	nt: <u>10</u>

Profile Desc	ription: (Describe	to the depti	needed to docume	ent the indicator or co	nfirm the absence of indicators.)
Depth	Matrix		Redox	Features	
(inches)	Color (moist)	%	Color (moist)	% Type¹ Lo	c ² Texture Remarks
12	N2.5/1	100			muck
18	N2.5/1	100			sic
36	2.5Y6/1	 65			sic
	7.5YR5/6	_ 35			
			*		
¹ Typo: CaC	neostration D-Da	nlotion DM-	Dadward Matrix, CS:	=Covered or Coated Sa	and Grains. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil		pieuon, min-	Reduced Mainx, Co	-Covered of Coated Se	Indicators for Problematic Hydric Soils ³ :
X Histosol			Sandy G	leyed Matrix (S4)	Coast Prairie Redox (A16)
	oipedon (A2)			edox (S5)	Iron-Manganese Masses (F12)
	stic (A3)			Matrix (S6)	Other (Explain in Remarks)
_	n Sulfide (A4)			lucky Mineral (F1)	、.
	d Layers (A5)			Bleyed Matrix (F2)	
	ıck (A10)			Matrix (F3)	
	d Below Dark Surfa	ace (A11)		ark Surface (F6)	
Thick Da	ark Surface (A12)			Dark Surface (F7)	³ Indicators of hydrophytic vegetation and
	lucky Mineral (S1)		Redox D	epressions (F8)	wetland hydrology must be present,
5 cm Mc	icky Peat or Peat (S3)			unless disturbed or problematic.
Restrictive	Layer (if observed	i):			
Туре:		•			
Depth (in	ches):				Hydric Soil Present? Yes X No
Remarks:					
LIVEROLO	· · · · · · · · · · · · · · · · · · ·				
HYDROLO		· 	·		
•	drology Indicator				Oday Indicators (minimum of two roquired)
	•	<u>f one is requi</u>	red; check all that ar		Secondary Indicators (minimum of two required)
	Water (A1)		··	ined Leaves (B9)	Surface Soil Cracks (B6)
	ater Table (A2)		Aquatic Fa	•	Drainage Patterns (B10)
Saturati				itic Plants (B14)	Dry-Season Water Table (C2)
	farks (B1)			Sulfide Odor (C1)	Crayfish Burrows (C8)
	nt Deposits (B2)			Rhizospheres on Living	
	posits (B3)			of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
	at or Crust (B4)			on Reduction in Tilled S	
Iron De			—	Surface (C7)	X FAC-Neutral Test (D5)
	ion Visible on Aeri	• • • • • • • • • • • • • • • • • • • •		Well Data (D9)	
		ave Surface (B8) Other (Ex	plain in Remarks)	
Field Obser	rvations:		 -	40	
Surface Wa	ter Present?		No Depth (ir		
Water Table	Present?	Yes	No Depth (ir	nches):	
Saturation F	Present?	Yes	No Depth (ir	iches):	Wetland Hydrology Present? Yes X No
(includes ca	pillary fringe)	om dours	onitoring wall ==='-1	photos, previous inspe	ctions) if available:
Describe Re	ecoraea Data (stre	aın gauge, m	ontoring well, aerial	photos, previous inspe	olione), ii avaliame.
Remarks:					
Hanamad T	ributani ta Ottor C	rook flower the	ough this wetland c	amaley	
Onnamed 1	induary to Otter C	icck hows (ii)	ough this Welland C	ompies.	
l.					